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**PAINTINGS AND THEIR IMPLICIT PRESUPPOSITIONS:
HIGH RENAISSANCE AND MANNERISM**

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HUMANITIES WORKING PAPER 75

August 1982

ABSTRACT

All art historians who are interested in questions of "styles" or "schools" agree in identifying a High Renaissance school of Italian painting. There is, however, a disagreement, which has seemed nonterminating, regarding Mannerism: Is it another distinct school or is it merely a late development of the Renaissance school? We believe that this disagreement can be terminated by distinguishing questions of fact about paintings from questions about the definitions of schools. To this end we have had two representative subsets of paintings--one earlier, one later--rated on four of the dimensions of implicit presuppositions that we have introduced in other Working Papers. When the paintings are scaled in this way a very distinct profile emerges for the earlier, or Renaissance, paintings. In contrast, the later, or Mannerist, paintings are so heterogeneous that we conclude that they are best described as deviations from the Renaissance profile, rather than a separate school. These results are not unimportant--at least for art historians. But they are more important methodologically inasmuch as the procedures applied here can be used in classifying and distinguishing from one another all kind of cultural products.

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In Social Science Working Papers 350, 353 and 357 we reported the results of several studies of the ways in which differences in "implicit presuppositions" (i.e., differences in basic cognitive orientations) cause scholars, even those working in the same field, to reach different conclusions from the same evidence. In Humanities Working Paper 66 we reported three additional studies in which we demonstrated that paintings can be rated on many of the same dimensions of implicit presupposition that were used in the Social Science Working Papers. This, we argued, was an important finding: there was certainly no a priori reason why works of art, such as sixteenth century paintings, should be characterized by the same implicit presuppositions as characterize letters in the correspondence columns of Science and papers on educational theory by Carl Rogers and B. F. Skinner.

In Working Paper 66 we were content merely to show that our subjects could agree on the implicit presuppositions of the paintings they were asked to rate. In the present paper we use the ratings thus obtained to clarify a much debated question in art history--the differences between the so-called High Renaissance and Mannerist schools of painting.

We shall begin with some remarks on the notion of "school" generally. In a second section we summarize the debate amongst art historians regarding Renaissance and Mannerism. In the third section we show the relevance of our data to this debate, and in a final section we discuss some possible objections to our procedures.

1. WHAT IS A "SCHOOL"?

We conceptualize a school--e.g., Behaviorism in psychology or Phenomenology in philosophy or Romanticism in poetry--as a set of cultural products which share a number of family resemblances (Wittgenstein, 1953). No two members of the set which together make up the school have all of the family resemblances of their set in common, but all members of the set share enough of these resemblances, in varied combinations, to be perceived as members of the same family. Each family has a different set of resemblances from those that characterize other, contrasting schools. Some of the similarities that make up the family resemblances of a school are obvious to everybody. Both members of the school itself and outsiders--critics and historians of the school--usually agree on what at least some of these features are, though they often disagree over which features are "important" and which are only "superficial." Such disagreements may in part be only disagreements about the meaning of words, because insiders and outsiders alike lack any standard terminology for discussing the features that interest them (Jones, 1975). But the disagreements may also arise from differing implicit presuppositions of the disputants

themselves, which might cause each of them to focus on some features rather than others. In such cases the disagreements are likely to be nonterminating (Jones, 1970).

2. RENAISSANCE AND MANNERISM: ART-HISTORICAL OPINION

Art historical opinion is divided as to whether the differences between earlier and later painting in the sixteenth century justify identifying later paintings as a distinct, Mannerist school. Some art historians, for instance, argue that the differences which seem to other art historians "striking" are not sufficiently important to warrant making a distinction between the two schools (Levey, 1975). And those who do detect differences which they hold to be significant by no means agree on what the significant differences are.

Thus for Murray (1967, p. 31), "Mannerism is easily defined: . . . bizarre and convoluted poses . . . ; subject matter either deliberately obscure or treated so that it becomes difficult to understand . . . ; extremes of perspective . . . ; vivid colour schemes. . . ." But Shearman (1967, p. 19), in the same year and with equal confidence, asserts that "When we turn to look for tendencies in the art of the sixteenth century that may be called Mannerist, it is logical to demand . . . poise, refinement, and sophistication, and works of art that are polished, rarefied and idealized away from the natural; hot-house plants. . . ." In contrast to these writers, Hauser (1965, pp. 13-15) states that, though the Mannerists "took fully into account the inadequacy of rational thought, . . . they could not

give up the arts of reason. . . . They despaired of speculative thought, and at the same time clung to it." Thus, according to Hauser, "an essential element" in Mannerism was its involvement in paradox; in this respect it shared in what Hauser believes was "the spirit of the age."

Again, some art historians hold that Mannerism is at most a merely local phenomenon, no more than a "Tuscan-Roman manifestation" (Levey, 1975, p. 50). Others believe it was "the prevailing style for seventy or eighty years after the death of Raphael," i.e., down to the end of the century (Hauser, 1965, p. 19). Still others regard it as a "universal" phenomenon, "a tendency that may appear within any period and almost any category of style" (Shearman, 1967, p. 260).

Transition From Art-Historical Talk to the Language of our Studies of Implicit Presuppositions

We believe that the data accumulated in the three studies reported in Working Paper 66 can help settle this debate. But first we must show that there is a reasonably good fit between the language in which art historians discuss the issue and the language in which our dimensions of implicit presupposition are defined.

Regarding our dimensions, the definitions of those used in these studies are given in Table 1.

[Table 1 about here]

As for art-historical language, we think that most of the plethora of features listed by other art historians as marks of the two styles can probably be fitted, without too much forcing, into what Hartt (1974,

p. 518) modestly calls "a few generalizations." That is, Hartt has successfully generalized a great many different Renaissance and Mannerist features (or perhaps a great many verbally differentiated descriptions of a somewhat smaller number of features), into sixteen (2 x 8) art-historical categories. Also, though the dimension of implicit presupposition which we used in the three studies reported in Working Paper 66 are not isomorphic with Hartt's generalized features, we think it likely that the kinds of features Hartt generalizes under Content, Narrative and Substance were probably being taken into account by our subjects when they rated the sample paintings on D-1 (inner/outer). Similarly, we think that the features Hartt generalizes as Figure and Proportion were probably taken into account when our subjects rated the sample paintings on D-4 (static/dynamic). Table 2 reproduces Hartt's generalized features, together with our suggestions regarding the correlations between these features and our implicit presuppositions.

[Table 2 about here]

Defining Characteristics vs. Family Resemblance

Hartt seems to assume--and so we think do virtually all the other art historians with whose writings we are acquainted--what may be termed a Platonic concept of a school, in contrast to the Wittgensteinian concept of a school that we propose. That is, Hartt and other art historians assume that if there is such a thing as a Mannerist school of painting it is in virtue of there being certain defining characteristics which all paintings that are rightly

designated as "Mannerist" possess and which no painting which is rightly designated as "Renaissance" (or any other school) possesses. Much of the disagreement amongst art historians can be traced to this assumption about the nature of a "school." If all parties adopt this view of a school, it is easy for art historian A to demolish B's definition of Mannerism by pointing out that some painting which "everybody" agrees is Mannerist lacks one of the defining characteristics that B attributes to the Mannerist school, or--more devastating perhaps--that some painting which everybody agrees is "Renaissance" also possesses this defining characteristic.

Much--but not all, of course--of the disagreement amongst art historians would be dissipated if they were to replace the notion of defining characteristic with the notion of distinguishing feature. Consider, for instance, Hartt's generalizations shown in Table 2. If these are viewed as defining characteristics, every painting rightly called "Renaissance" must possess the eight Renaissance features, and every painting rightly called "Mannerist" must possess the contrasting eight Mannerist features. Few paintings, we think, will satisfy these conditions. But on the view of "school" recommended here Hartt would be warranted in calling a painting "Renaissance" (alternatively "Mannerist") if it possesses some subset of his eight family features. Further, on this Wittgensteinian view different paintings can be expected both to possess different subsets of these family features and also to possess these features in differing amounts--just as the protruding lip, which is a Hapsburg family feature and which

characterizes some (not all) members of that family, is more or less strikingly emphasized in the family members who possess it.

Is There A Mannerist School?

Do the distinguishing features of earlier and later sixteenth century Italian paintings fall into two strongly bipolarized groups, as Hartt seems to believe--a finding that would justify the claim that Renaissance and Mannerism are different schools? Or are later paintings distinguished from earlier paintings not by a different set of family features but by more strikingly accented occurrences of some of the same family features? If that is the case, this finding would support the claims of those art historians who see Mannerism less as a separate school than as a tendency to exaggeration of some features of Renaissance paintings.

We believe that our data give us a way of deciding this issue. Using a limited number of features (defined in terms of our dimensions of implicit presupposition) we will first present a family profile for Renaissance paintings and then match the later paintings against this profile in order to see whether they deviate enough from the Renaissance profile to warrant identifying them as constituting a distinct school.

PROCEDURE

The data used in the present analysis are those obtained in the three studies reported in Working Paper 66--ratings of 19 sixteenth

century Italian paintings on four of our dimensions of implicit presupposition by 179 persons (82 in Study 1, 82 in Study 2, and 15 in Study 3). We will not repeat here the description given in Working Paper 66 of the procedures used in obtaining the ratings, but two points not covered in that Working Paper will be discussed here. They are procedures for selecting the paintings used in the studies and the matter of consensus among raters.

Procedures for Selecting the Paintings Used in the Studies

Although Working Paper 66 sought simply to test the hypothesis that paintings can be rated on some of the same dimensions of implicit presupposition as those on which written materials of various kinds can be rated, we selected the paintings used in all three studies with a view to a subsequent test of the art-historical hypothesis that Mannerism is a distinct school.

Accordingly, in Studies 1 and 2 we used paintings approved by our art-historian advisers as "typical" of painting in Florence around 1500-1505 and "typical" of painting there after 1525. In Study 3, though we did not question our advisers' competence, we wanted to obtain our sample by a procedure which others could duplicate. Accordingly, a procedure was developed which would generate a pool of paintings which we could be assured was representative of art-historical opinion generally.

We first selected two time-periods--1500-1515 for earlier paintings and 1545-1560 for later paintings. After some preliminary analyses of intervals of various lengths, these fifteen year periods

were selected as long enough to encompass a large number of paintings but also short enough to fall well within the longer time periods which art historians regard as characterized by paintings in the High Renaissance and Mannerist styles.

The selection process started by listing all the paintings reproduced by S. J. Freedberg (1974) which were painted during the two time intervals. Freedberg was chosen because his work is one of the most recent, most detailed and most thorough studies of the whole century in which the two time-intervals occur. Seventeen other works in art history were chosen because each included a large number of reproductions. (The books used are indicated in the list of References by an "R" in the margin.) Paintings not reproduced by Freedberg but reproduced in the other 17 were added to the Freedberg list. A table was then constructed recording frequency of reproduction. The distribution of frequency of reproduction proved to be badly skewed in that the paintings of three artists--Raphael, Michelangelo and Titian--completely dominated the list, and, within the oeuvres of these three artists the list was further skewed in that only a relatively small number of their many paintings were regularly reproduced. Since we thought that economic considerations, rather than critical evaluation, might have been a major factor in the authors' decision whether or not to reproduce a painting (the cost of reproducing from an existing negative is much less than the cost of procuring a new photograph), we decided to construct a new list in which we counted the number of times a painting was discussed but not necessarily reproduced. We defined

"discussed" as at least a clause of critical comment (a laudatory adjective or two did not count as discussion). Freedberg and 11 other books were used in making this count (they are indicated by the letter "D" in References). They were chosen, not because of the large number of reproductions they contained but because they reflected art-historical opinion in the twenties and thirties, as well as in the seventies (in order to take account of possible changes in taste). Successful textbooks were included as well as scholarly works, on the grounds that the success of a textbook probably indicates that its author's opinions reflect those of a large number of professors of art history. After we had excluded paintings about whose dating there seemed to be serious differences of opinion among our 12 authors we had a list of 403 paintings, 245 early and 158 late. Though this was much longer than our first list, it was still badly skewed, and in the same ways. Thus economic considerations did not play the decisive part we had initially thought possible.

In order to obtain the pool of representative paintings from which our test paintings were to be drawn, we dropped from this list of "discussed" paintings, all paintings which were discussed by fewer than three of the twelve authors; and, since we did not want the pool to be swamped by Raphael, Michelangelo and Titian, we allowed in the pool no more than two paintings (those discussed most frequently) by each of these artists. Thus the pool contained some paintings that were discussed less frequently than many paintings by Raphael, Michelangelo and Titian. We excluded nudes from the pool on the grounds that they

might introduce extraneous considerations. Finally, we had to eliminate a few paintings because we found we could not obtain satisfactory reproductions of them.

The remaining paintings on the "discussed" list constituted the group of paintings from which we drew our sample in the following way: We wanted equal numbers of paintings from both time-periods. We wanted both Florentine and Venetian paintings (to control for possible regional differences). We wanted to match for subject matter. We wanted religious as well as secular themes. We wanted paintings containing several figures as well as paintings representing a single person. Within the limits of these constraints the paintings used in Study 3 are representative of the most frequently "discussed" paintings of the earlier and later periods. (These paintings are listed in Appendix A. The ratings of one painting, The School of Athens, were dropped from consideration when we found that the reduction needed to accommodate this huge painting to an 8" x 10" reproduction eliminated many details and so made the painting difficult for our raters to "read.")

We believe that art historians who are interested in school differences will regard all the paintings in our earlier group as "typical" of the Renaissance school, while those who hold that Mannerism is a distinct school will view the paintings in our later group as "good" examples of that style.

Procedures For Testing Consensus Among Raters

In Working Paper 66 we showed that there was a strong tendency to rate the earlier paintings toward one pole and the later paintings toward the opposite pole. Since we were interested simply in the differences between the whole group of earlier paintings and the whole group of later paintings, we aggregated our data across paintings. The relative position but not the precise position of the ratings was at issue. Here, where we are interested in the extent to which individual paintings deviate from the Renaissance profile, it has been necessary to disaggregate the data and obtain the median value for each painting on each dimension. But did the raters in Studies 1, 2 and 3 agree on the scale values they assigned a particular painting on a particular dimension?

Distribution among raters. One way to assess the degree of consensus is to compare the distribution of ratings for a particular painting on a given dimension against a chance expectation of an equal proportion of ratings at each scale value. The scale values A, B, C, D, E, V, W, X, Y, Z are shown in Table 3. The letter O is used to represent the middle, neither/nor position. Thus there are 11 possible scale values.

If all of the raters gave a particular painting the same scale value in rating it on a particular dimension, that would provide 100 percent consensus. However, if the ratings were randomly distributed among the scale values, there would be no consensus among the raters. Low consensus among raters might result from ambiguous or

incomprehensible descriptions of the ends of the scales, from the use of untrained or incompetent raters, from the fact that a particular dimension is irrelevant for a particular painting, or from the fact that a painting has some features of one value and other features of another value, so that raters, giving different weights to different features, give different ratings. Of course, low consensus may arise from some combination of these factors.

Using the Kolmogorov-Sminov one-sample test (Siegel, 1956, pp. 47-52) the hypothesis that the distributions were randomly distributed among the eleven scale values (for each painting on each dimension) can be rejected at $p < .05$ for 42 out of the 72 possible cases (19 of the 32 cases of Renaissance paintings and 23 of the 40 cases of later paintings). Had the distributions been chance, then only about 4 of these 72 cases, rather than 42, would have been rejected as chance distributions at $p < .05$. For each of the dimensions the chance distribution hypothesis can be rejected often enough to provide strong evidence that the scales are not ambiguous or inadequate nor are the raters generating random distributions of ratings. In those instances where the consensus is insignificant, the low consensus must be the result of the characteristics of the painting.

Agreement on ratings. Another way to assess consensus is to ascertain how many raters give the same or close to the same scale values in their ratings. The percent of ratings which fall within three values (the median and one step above and one step below) was

computed for each picture on each dimension. (When the median was at the most extreme position, A or Z, then two steps below or two steps above comprise the three positions.) The percent of ratings which were included within the values of the median \pm one step varied from 27 percent to 93 percent. As would be expected, those medians which were more extreme had higher percentages of the cases within the median \pm one step. D-1 had 6 instances from among the 18 paintings in which more than 60 percent of the consensuses were within the median \pm one step; D-2 and D-3 each had 5 such instances; D-4 had 10. This degree of consensus is encouraging in view of the art-historical naiveté of our raters. If they had been trained and if they had practiced on diverse material (poetry, prose, scientific articles etc. as well as other paintings) we believe the consensus would be even greater.

RESULTS

Inasmuch as the median is not influenced by the degree of extremity in outlying values, medians rather than means have been used to express the central tendency of the ratings for a particular picture on a particular dimension. Medians for the eight paintings from the earlier period are presented in Table 4 and those for the ten paintings from the later period are presented in Table 5 (for the scale values, see Table 3).

[Tables 4 and 5 about here]

Tables 4 and 5 also present the average deviation for paintings and for dimensions. That is, the absolute discrepancies of each-

median-of-each-painting-on-each-dimension from the profile-median-for-that-dimension first have been summed and then divided by the number of such discrepancies. These discrepancies are summed down columns and then divided by the number of paintings to provide the average deviation for each dimension. They are summed across rows and divided by the number of dimensions to provide the average deviation for each painting. As can be seen in Tables 4 and 5, the average deviations of earlier paintings from the earlier profile medians range from 1.62 steps for D-2 and D-3 to 2.38 steps for D-4. In contrast, the average deviations of the later paintings from the later profile medians range from 3.00 for D-2 and D-4 to 3.20 for D-3. For each dimension the earlier paintings are closer to the earlier profile than are the later paintings close to the later profile.

The average discrepancies for earlier paintings from the earlier profile aggregated across dimensions is 1.97 steps. The average discrepancies of later paintings from the later profile aggregated across dimensions is 3.08 steps.

Tables 4 and 5 also show the average deviation of the median for each painting on each dimension from the appropriate profile median for that dimension. Among the group of earlier paintings Raphael's Castiglione (average deviation of 0.25 steps) and his Belle Jardiniere (average deviation of 0.50 steps) have the lowest discrepancies; Michelangelo's Holy Family (average deviation 4.50 steps) has the greatest. Among later paintings Pontormo's Visitation (average deviation of 1.50 steps) has the lowest discrepancies and Tintoretto's

Miracle of the Slave (average deviation 6.28 steps) has the greatest.

We are now in a position to deal with the question we set out to answer. Is there but one school of sixteenth century Italian painting, or are there two distinct schools? Table 6 shows the earlier profile median for each dimension and the interquartile range of the medians of the individual earlier paintings around that profile median value. Table 6 also shows the median profiles for the late paintings and their interquartile ranges.

[Table 6 about here]

Table 7 shows the dispersion of the medians for each of the eight Renaissance paintings and Table 8 shows the dispersions of the medians for each of the ten paintings from the period.

[Tables 7 and 8 about here]

First, as regards the earlier medians. Two of the eight earlier paintings (Raphael's Belle Jardiniere and Castiglione) follow the profile closely; four (Albertinelli's Visitation, the Angelo Doni, the Maddelena Doni, and the Mona Lisa) follow it closely on three of the four dimensions; two (the Albertinelli Noli The Tangere and Michelangelo's Holy Family) are closer to the later profile than to the early profile. In general, then, the medians of the ratings of the earlier paintings are closely concentrated around the earlier profile. We believe that the profile for the whole set of paintings which art historians characterize as "Renaissance" is not likely to deviate much from the profile we have obtained for these eight early paintings, and in Table 9, therefore, we represent, for each dimension, the median of

the medians-for-each-painting aggregated across the eight paintings from the Renaissance period. These four values represent a family profile for Renaissance paintings.

[Table 9 about here]

The situation is quite different when we come to the profile of the later paintings and to the question whether it represents a distinct Mannerist school. In the first place, though the profile for the later paintings certainly differs from what we will now call the Renaissance profile, they are far from being bipolarized, as Hartt seems to have assume them to be. Further, nine out of the ten later paintings (the exception is Bronzino's B. Panciatichi) are closer to the Renaissance profile than to the later profile on at least one dimension.

Some paintings from the later period--Bronzino's Eleanor of Toledo and Her Son and Titian's Charles V on Horseback--have ratings on D-2, D-3, and D-4 which are characteristic of the Renaissance profile while deviating substantially on D-1 from that profile (see Table 8). Other later paintings--for example, Titian's Pope Paul III and His Nephews and Tintoretto's Miracle of the Slave--have ratings on D-1 that are characteristic of the Renaissance profile and ratings on D-2, D-3, and D-4 that deviate substantially from the Renaissance profile. In a word, later paintings are heterogeneous: some are close to the Renaissance profile except for one deviation, while others are distinguished by characteristics that contrast markedly with that profile. These data do not support the hypothesis that some

characteristics are exclusively early (or "Renaissance") and that the contrasting characteristics are exclusively later (or "Mannerist").

To sum up, and providing one adopts a Wittgensteinian definition of "school" (in terms of family features rather than defining characteristics), we think that the family profile we have obtained for Renaissance paintings is reasonable. Inasmuch as our study has used only four scales (features) and a very small subset of the paintings produced in that period, our confidence cannot be unlimited. But though additional scales and different raters might modify the profile, we believe that in its present form it is probably a good approximation of the Renaissance school.

As regards the later paintings, although our data can be interpreted as supporting either a Mannerist school or a deviation from the Renaissance profile, we believe that, because of the diversity of these later paintings, they are best described as deviations from the Renaissance profile rather than as a distinctive family.

DISCUSSION

We think it likely that art historians will resist the vocabulary we have introduced and the rating procedures to which this vocabulary is attached and in terms of which it is defined. Understandably they will prefer to continue talking about the differences between earlier and later sixteenth century paintings (alternatively, between Renaissance and Mannerism) in a familiar art-historical language--whether the generalized vocabulary of a Hartt or

their own individual vocabularies. Anticipating resistance, we venture two observations.

First, use of our criteria and our scales makes it possible to settle questions that have long been at issue in the art-historical world. Thus, to the extent that the earlier and later paintings used in our three studies are representative of earlier and later sixteenth century Italian paintings, it seems clear that the second art-historical hypothesis--viz. that later paintings represent deviations from the school profile and do not constitute a distinct school--fits the facts better than the first hypothesis.

If someone challenges this conclusion and insists that the differences between the earlier and later profiles, as shown in Tables 6, 7, 8 and 9, are sufficiently great to warrant talking about two schools instead of one, a more refined analysis is possible.

As Table 6 indicates, though there is diversity among both Renaissance and later paintings, there is more diversity among the later paintings. Is that too much diversity to warrant identifying the later paintings as a distinct school? Clearly, a measure of the degree of family resemblance would be useful, for it would provide a scale with degrees of family membership instead of the two-category scale--"family member"/"not a family member"--with which we have been operating. If Mannerism represents a later phase of the Renaissance school one could expect a continuous series of gradations from Renaissance to later deviations. One procedure for assessing degrees of family resemblance is called multidimensional scaling, and in a forthcoming paper we shall

present such a method and the results of scaling these paintings.

Thus, once data are quantified, the seemingly substantive question as to whether there is one school or two collapses into a merely semantic question about when to use the term "one school" and when to use the term "two schools." It is as if we have reduced a seemingly nonterminating disagreement as to whether the afternoon is very hot or only uncomfortably warm into (1) a straightforward factual question which can easily be terminated--How high is the column of mercury in the glass tube?--and (2) a semantic question about what term to use, when the mercury stands at 90° , to convey how the speaker feels about the temperature at that moment. Since different people feel heat differently and the same person feels differently about a given temperature reading at different times, the answer to the second question is inherently unstable. Accordingly, if the elimination of disagreement and the achievement of consensus are goals worth pursuing, there is much to be said for making use of the criteria we have proposed.

Second, the criteria we have proposed are not specific to painting, still less to sixteenth century Italian painting. These same implicit presuppositions have already been shown to be useful in characterizing a considerable variety of cultural products. If subsequent investigation continues to extend their range of application, opportunities for a rigorous comparative study of cultures and of periods become possible.

We think that the results reported here are thus more important methodologically than substantively. Even humanists and cultural historians who are indifferent to the controversy over Mannerism should find this Working Paper useful as a case study of how a wide variety of cultural products can be compared across different time periods for underlying similarities and contrasts. It is thus our hope that our modest, small-scale study of Renaissance and Mannerism will stimulate others who possess competences we lack, to undertake large-scale studies of this kind.

ACKNOWLEDGEMENTS

We wish to record our indebtedness to the following colleagues and friends:

- Gail Geiger, Judson Emmerick, Arthur Stevens and Aimée Price, whom we frequently consulted about art-historical topics.
- Forrest D. Nelson, David Grether and Gary Cox, on whom we imposed for advice regarding statistical problems.
- Margaret Mulhauser, who made the census of "discussed paintings" for Study 3, Katie Faust, who commented helpfully on an early draft, and Mary C. McGrath and Jennifer Young, who patiently endured our repeated ransacking of the Pomona College slide collection.
- The Pomona College Research Committee who provided funds to support Study 3.

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APPENDIX A

THE PAINTINGS USED IN THE THREE STUDIES

Study 1

<u>Renaissance</u>	<u>Paired With</u>	<u>Mannerist</u>
Albertinelli: <u>Noli Me Tangere</u>		Bronzino: <u>Noli Me Tangere</u>
Raphael: <u>La Belle Jardiniere</u>		Bronzino: <u>Holy Family</u>
Raphael: <u>Angelo Doni</u>		Bronzino: <u>Bartholomeo Panciatichi</u>
Albertinelli: <u>Visitation</u>		Pontorno: <u>Visitation</u>

Study 2

Renaissance

Raphael: La Belle Jardiniere
Raphael: Maddalena Doni

Mannerist

Salviati: Caritas
Bronzino: Holy Family
Rosso Fiorentino: Moses and the Daughters of Jethro

Study 3

Renaissance

Raphael: Castiglione
Leonardo: Mona Lisa
Michelangelo: Holy Family (Doni)
Raphael: School of Athens

Mannerist

Titian: Charles V on Horseback
Bronzino: Eleanor of Toledo and Her Son
Titian: Pope Paul III and His Nephews
Tintoretto: Miracle of the Slave

TABLE 1

Dimension 1

- one end - Emphasis on the inner life of the subject--on mood, feeling, attitude, belief, desire, interactions with others which arise from personal or emotional concern.
- other end - Emphasis on external aspects of the subject--on social or economic status, external appearance, observable behavior, interactions with others which depend upon relative status, role or position.

Dimension 2

- one end - Emphasis on literal, surface meaning: meaning is expressed in relatively explicit, direct form and requires less decoding or interpretation to be understood.
- other end - Emphasis on depth in interpretation: meaning is implied or suggested in symbols, metaphors, allegories and so requires more decoding or interpretation before it is understood.

Dimension 3

- one end - Emphasis on the whole; on the integration and unity of the whole.
- other end - Emphasis on parts or elements; on the diversity and separate identify of parts.

Dimension 4

- one end - Emphasis on states of rest or of stable equilibrium.
- other end - Emphasis on change, motion, or transitional states.

For the procedures used in obtaining ratings in Studies 1, 2, and 3 see Working Paper 66, pp. 5-11.

TABLE 2

SUGGESTED CORRESPONDENCES BETWEEN HARTT'S "GENERALIZATIONS"
OF RENAISSANCE AND MANNERIST FEATURES¹ AND THE FOUR PAIRS
OF IMPLICIT PRESUPPOSITIONS RATED IN STUDIES 1, 2 AND 3

	High Renaissance	Mannerism
<u>Content</u>	Normal, supernormal, or ideal; appeals to universal D-1 (inner/outer) D-2 (easy/difficult to interpret)	Abnormal or anormal; exploits strangeness of subjects, uncontrolled emotion, or withdrawal D-1 (inner/outer) D-2 (easy/difficult)
<u>Narrative</u>	Direct, compact, comprehensible D-2 (easy/difficult)	Elaborate, involved, abstruse D-2 (easy/difficult) D-1 (inner/outer)
<u>Space</u>	Controlled, measured, harmonious, ideal D-2 (easy/difficult)	Disjointed, spasmodic, often limited to foreground plane D-2 (easy/difficult)
<u>Composition</u>	Harmonious, integrated, often centralized D-2 (easy/difficult)	Conflicting, acentral, seeks frame D-1 (inner/outer) D-2 (easy/difficult)
<u>Proportions</u>	Normative, idealized D-4 (static/dynamic)	Uncanonical, usually attenuated D-1 (inner/outer) D-4 (static/dynamic)
<u>Figure</u>	Easily posed, with possibility of motion to new position D-4 (static/dynamic)	Tensely posed; confined or overextended D-4 (static/dynamic)
<u>Color</u>	Balanced, controlled, harmonious D-1 (inner/outer)? D-2 (easy/difficult)?	Contrasting, surprising D-1 (inner/outer)? D-2 (easy/difficult)
<u>Substance</u>	Natural D-1 (inner/outer)	Artificial D-1 (inner/outer)

¹ Hartt (1974) p. 518.

TABLE 3

SAMPLE RATING SHEET

D-4

Ratings at positions toward this end represent increasingly greater degrees of this characteristic:

Emphasis on states of rest or of stable equilibrium.



A _____
B _____
C _____
D _____
E _____



V _____
W _____
X _____
Y _____
Z _____

Emphasis on change, motion or transitional states.

Ratings at positions toward this end represent increasingly greater degrees of this characteristic.

TABLE 4

MEDIANS OF INDIVIDUAL PAINTINGS FROM THE EARLY PERIOD, 1500-1515,
IN THE FIELD OF THE TABLE AND AVERAGE DEVIATIONS ON THE MARGIN

	D-1	D-2	D-3	D-4	Average deviation for each painting*
Albertinelli: <u>Noli Me Tangere</u>	O	B	O	E	3.00
Albertinelli: <u>Visitation</u>	A	C	A	X	2.25
Raphael: <u>Angelo Doni</u>	B	O	B	A	1.25
Raphael: <u>Maddalena Doni</u>	Y	A	A	A	2.75
Raphael: <u>Belle Jardinere</u>	B	B	A	B	0.50
Leonardo: <u>Mona Lisa</u>	O	C	B	A	1.25
Michelangelo: <u>Doni Holy Family</u>	A	X	V	V	4.50
Raphael: <u>Castiglione</u>	C	C	A	B	0.25
Renaissance profile-med of meds	B-C	C	A-B	B	
Average deviation for each dimension**	2.38	1.62	1.62	2.25	1.97***

*The sum across each row of the absolute discrepancies of each-median-of-each-painting-on-that-dimension from the earlier profile-median-for-that-dimension divided by the number (4) of dimensions.

**The sum down each column of the absolute discrepancies of each-median-of-each-painting-on-that-dimension from the earlier profile-median-for-that-dimension divided by the number (8) of paintings.

***Average deviation aggregated across paintings and dimensions.

TABLE 5

MEDIANS OF INDIVIDUAL PAINTINGS FROM THE LATER PERIOD, 1545-1560,
IN THE FIELD OF THE TABLE AND AVERAGE DEVIATIONS ON THE MARGINS

	D-1	D-2	D-3	D-4	Average deviation for each painting*
Pontormo: <u>Visitation</u>	X	O	C	Y	1.50
Bronzino: <u>B. Panciatichi</u>	Z	O	X	O	2.50
Bronzino: <u>Noli Me Tangere</u>	O	Y	D	Y	2.00
Rosso: <u>Moses and the Daughters of Jethro</u>	Z	B	Z	Z	4.25
Salviati: <u>Caritas</u>	B	Y	A	Z	4.00
Bronzino: <u>Holy Family</u>	O	B	O	O	2.00
Bronzino: <u>Eleanor of Toledo</u>	Z	A	A	A	5.00
Titian: <u>Charles V</u>	W	B	B	C	3.25
Titian: <u>Paul III</u>	B	V	W	V	2.50
Tintoretto: <u>Miracle of the Slave</u>	C	Y	X	Z	6.28
Profile of late paintings- med of meds	V	O	E	W	
Average deviation for each dimension**	3.10	3.00	3.20	3.00	3.08***

*The sum across each row of the absolute discrepancies of each-median-of-each-painting-on-that-dimension from the profile-median-of-late-paintings-for-that-dimension divided by the number (4) of dimensions.

**The sum down each column of the absolute discrepancies of each-median-of-each-painting-on-that-dimension from the profile median of late paintings-for-that-dimension divided by the number (10) of paintings.

***Average deviation aggregated across paintings and dimensions.

PROFILES FOR EARLIER AND LATER PAINTINGS ON THE
FOUR DIMENSIONS WITH THE INTERQUARTILE RANGE FOR ALL MEDIANS

Dimensions	Rating Values										
	A	B	C	D	E	O	V	W	X	Y	
D-1	<div><div>A/B</div><div>B/C</div><div>O</div><div>med.</div></div>										Earlier paintings
	<div><div>C</div><div>V</div><div>Z</div><div>med.</div></div>										Later paintings
D-2	<div><div>B</div><div>C</div><div>D/E</div><div>med.</div></div>										Earlier paintings
	<div><div>B</div><div>O</div><div>Y</div><div>med.</div></div>										Later paintings
D-3	<div><div>A</div><div>A/B</div><div>D</div><div>med.</div></div>										Earlier paintings
	<div><div>B</div><div>E</div><div>X</div><div>med.</div></div>										Later paintings
D-4	<div><div>A</div><div>B</div><div>O</div><div>med.</div></div>										Earlier paintings
	<div><div>O</div><div>W</div><div>Z</div><div>med.</div></div>										Later paintings

TABLE 7

MEDIAN VALUES FOR EIGHT RENAISSANCE PAINTINGS EACH IN
RELATION TO THE PROFILES OF PAINTINGS OF EARLIER AND LATER PERIODS

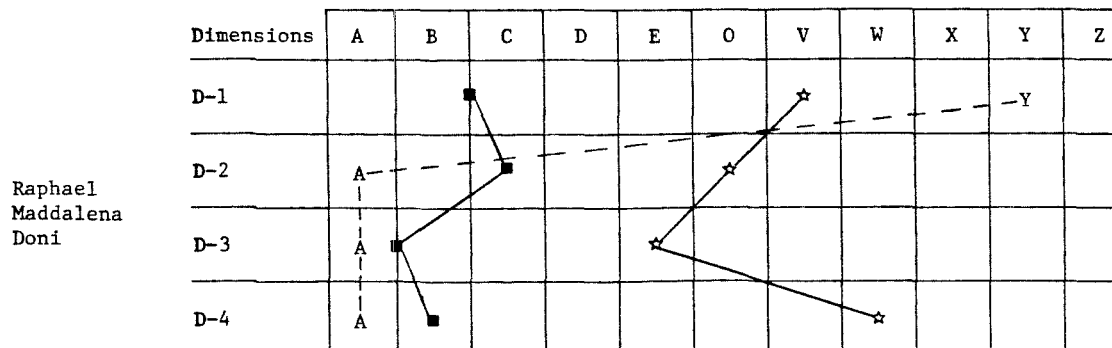
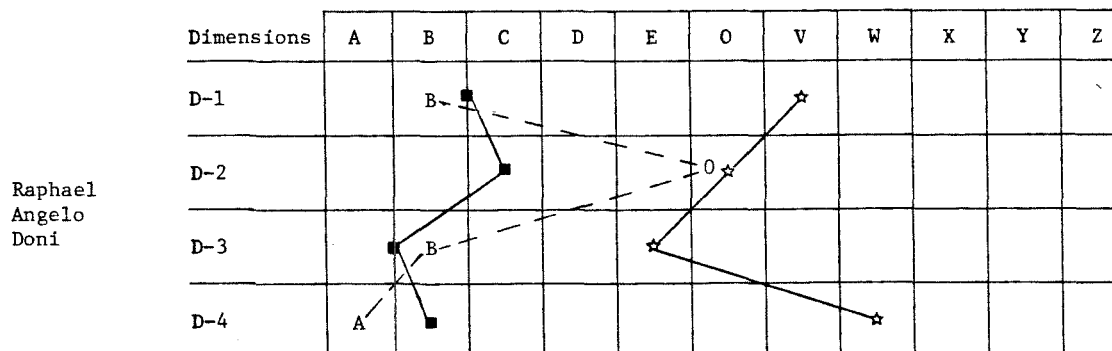
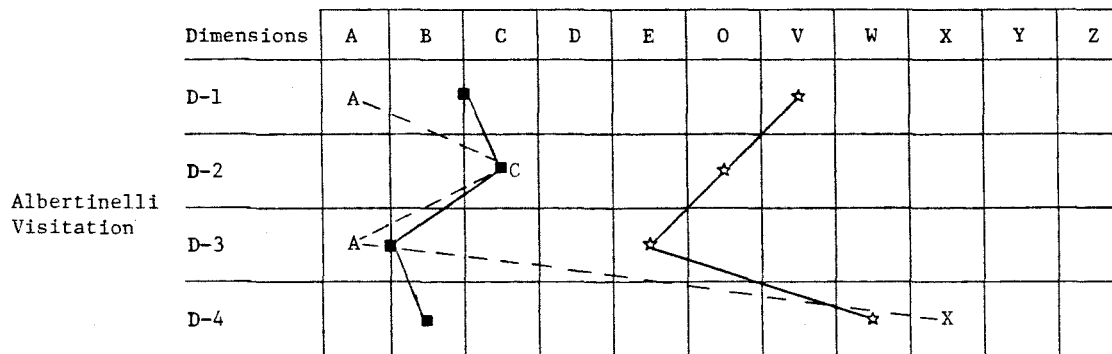
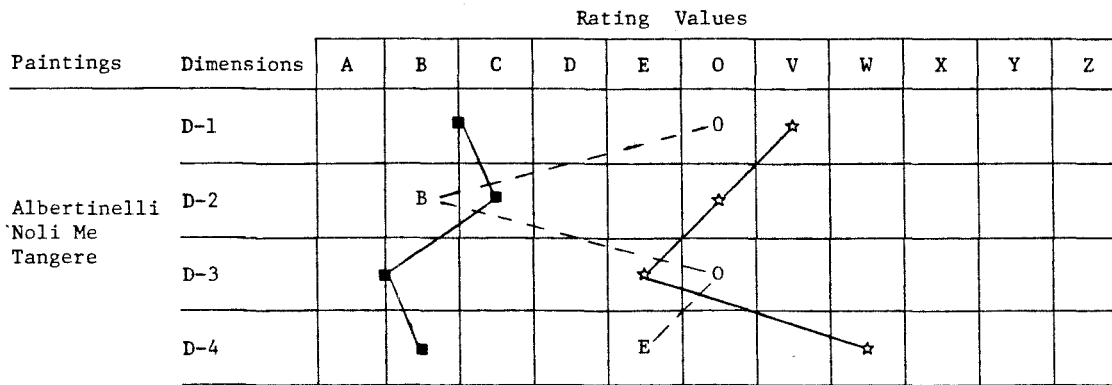
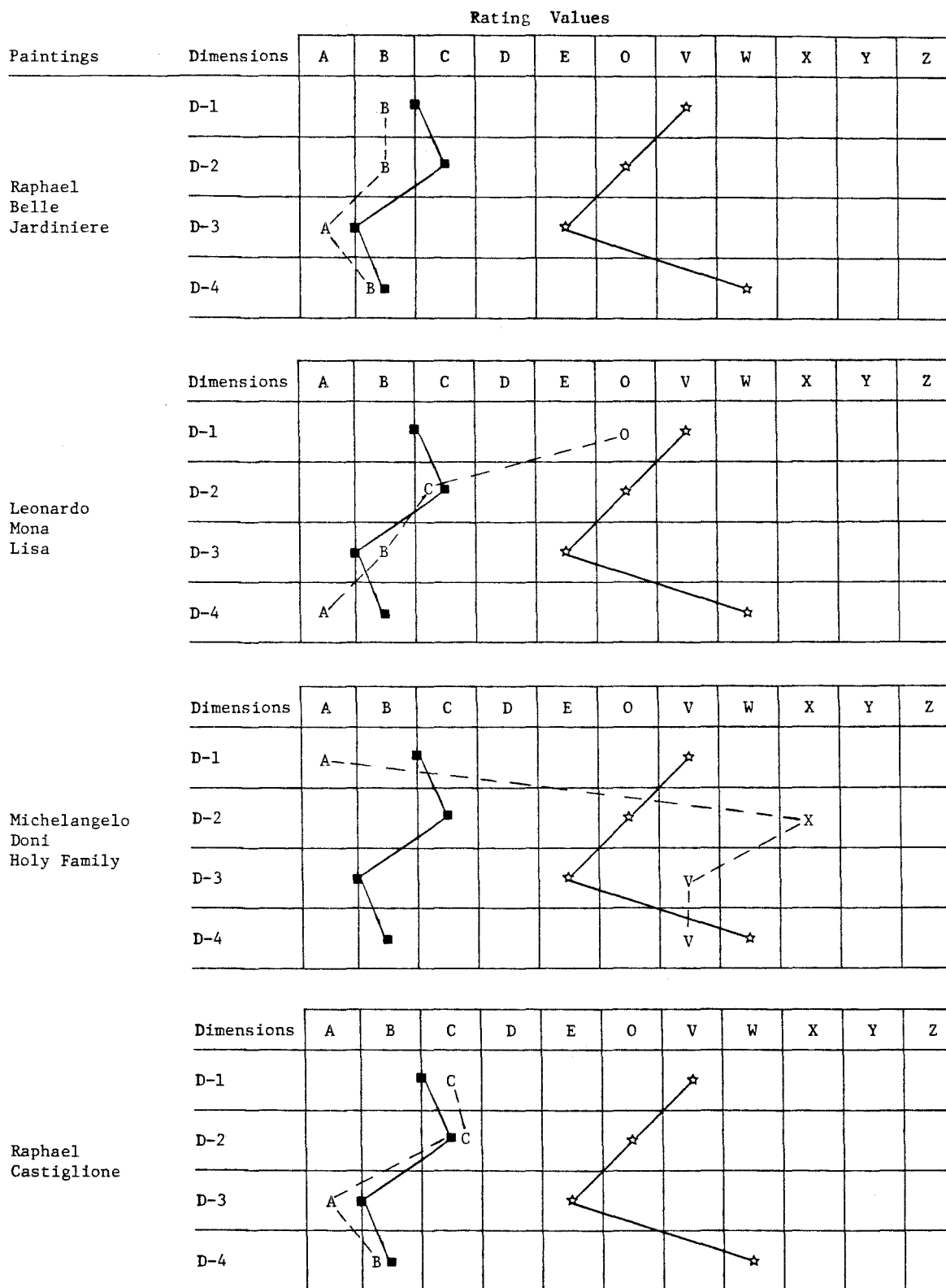


TABLE 7 (cont.)



Key:

■ — ■ Earlier median

☆ — ☆ Later median

----- Individual painting

The solid lines connecting the medians for the profiles of Earlier and Later paintings and the dashed line connecting the medians for that painting are for pictorial clarity--intermediate values should not be interpolated.

TABLE 8

MEDIAN VALUES FOR TEN PAINTINGS OF LATER PERIOD EACH IN
RELATION TO THE PROFILE OF PAINTINGS OF EARLIER AND LATER PERIODS

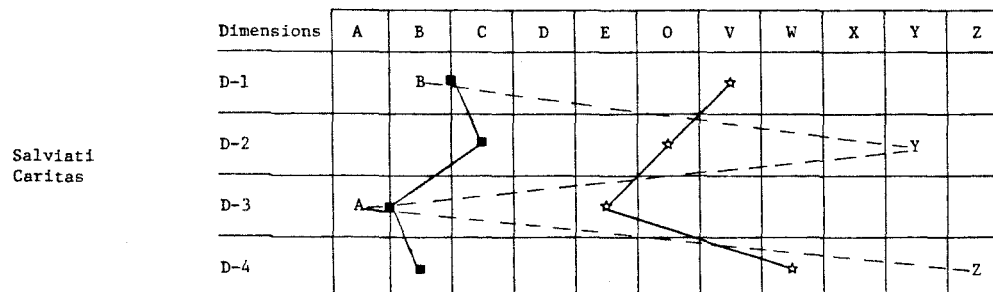
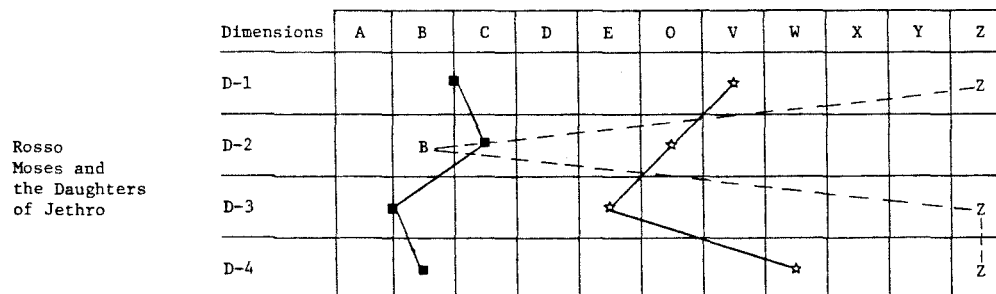
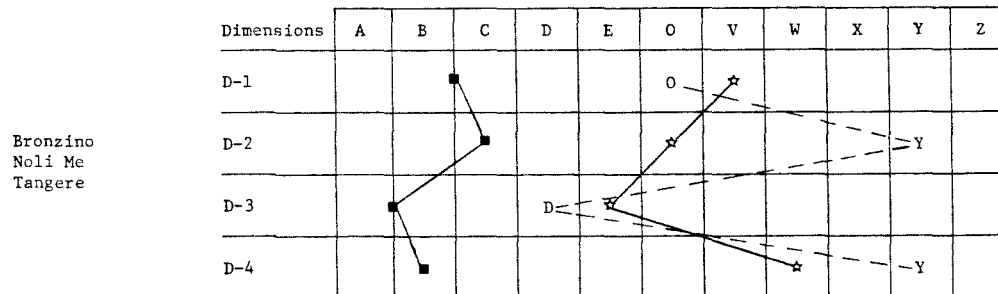
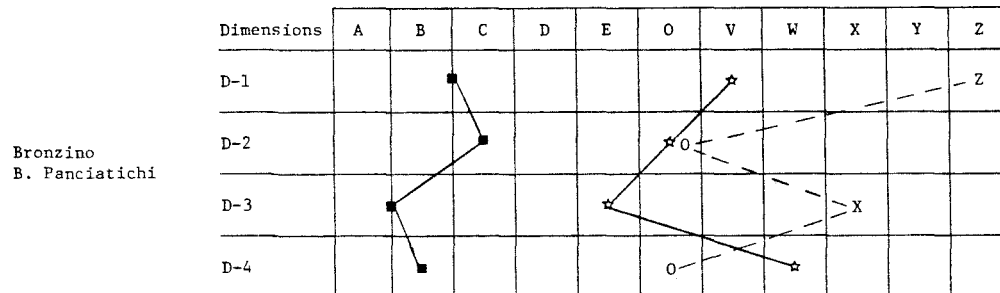
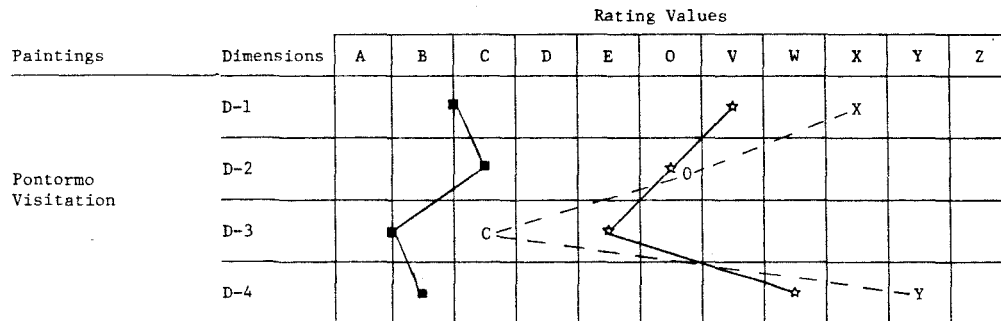
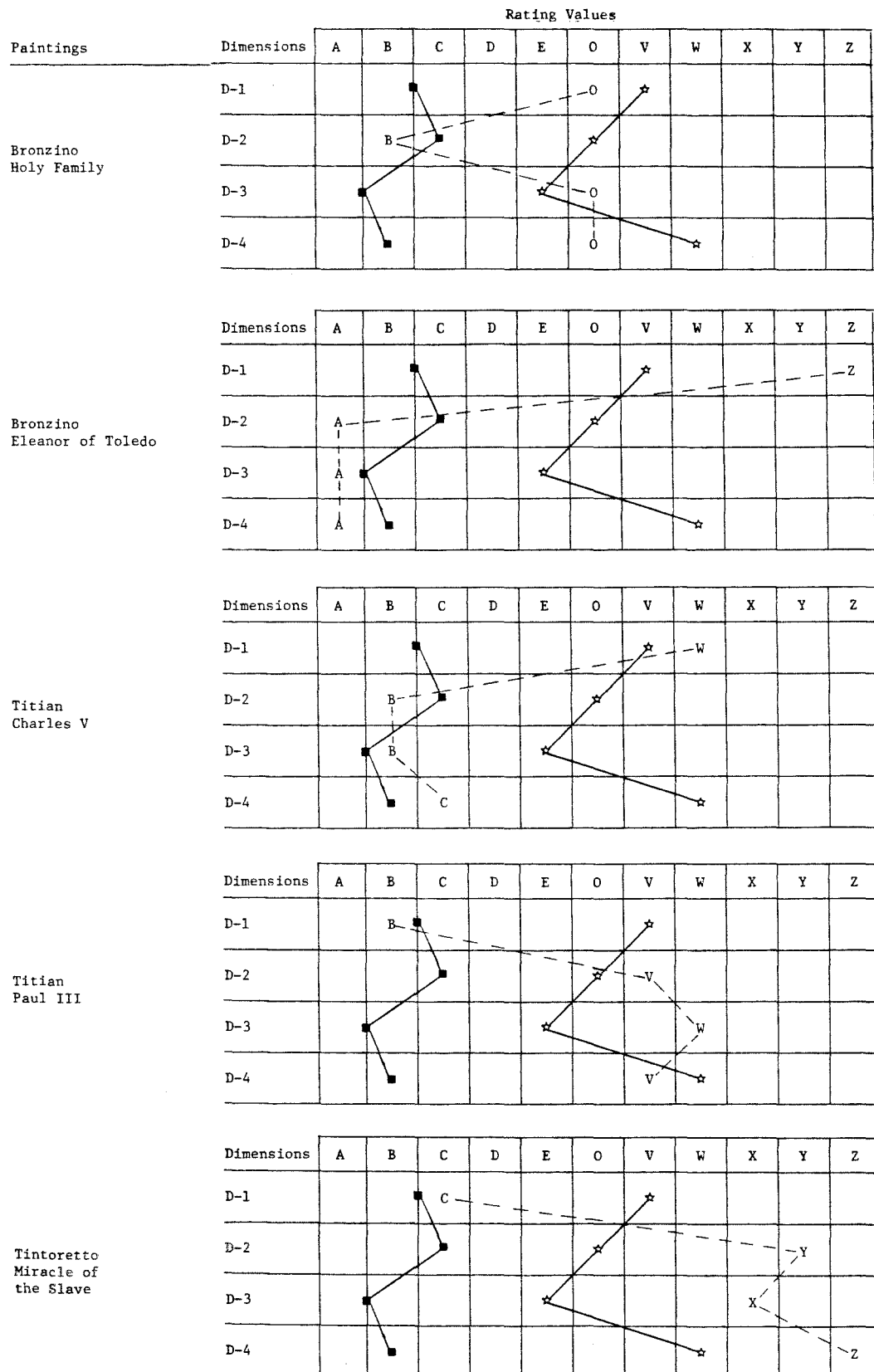


TABLE 8 (cont.)



Key:

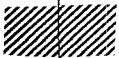



- Earlier median
 ☆—☆ Later median
 ----- Individual painting

The solid lines connecting the medians for the profiles of Earlier and Later paintings and the dashed line connecting the medians for that painting are for pictorial clarity--intermediate values should not be interpolated.

TABLE 9

THE RENAISSANCE PROFILE

Rating Values

Dimensions	A	B	C	D	E	O	V	W	X	Y	Z
D-1											
D-2											
D-3											
D-4											

The dashed lines connecting the medians have been introduced for pictorial clarity. Intermediate values should not be interpolated.